IRIA Sensor Software 03.01 Conversion Instruction

Contents

1	Description	1
2	Test Equipment and Materials	1
3	Software-Update for IRIA for Julian (AGas-Module 6870450 and 6870590)	2
4	Checking the Julian	2
4.1	General Check of Operation	2
4.2	Checking the Display Accuracy Using Anaesthetic Gas Mixture	3

1 Description

This conversion instruction describes the procedure of updating the sensor software of the AGas Module 6870450 and 6870590. The sensor software version is 03.01.

Schutz nach DIN 34 beansprucht.
Use of the document / contents is forbidden without express authority. All rights reserved.
Dräger Medizintechnik GmbH, D-23542 Lübeck

2 Test Equipment and Materials

conversion kit IRIA	part no. 6870665	
test cable RS232	part no. 7901808	
test gas	part no. 7910349	(1 vol% isoflurane, 1 vol% sevoflurane, 5 vol% CO_2, 60 vol% N_2O, balance O_2)
pressure regulator	part no. 7910346	
tube	part no. 1180703	
calibration adapter	part no. 8290301	
PC (Laptop)		

3 Software-Update for IRIA for Julian (AGas-Module 6870450 and 6870590)

- ❑ Switch Julian to ‚Standby' and select service mode.
- ❑ Use test cable RS232 extension 7901808 to connect PC (Laptop) with Julian (COM2).
- ❑ Call up of service program (icon on windows desktop).
- ❑ Select ‚Download'.
- ❑ Insert Firmware Disk 03.01, part no. 6870864 with IRIA program 03.01 in PC drive.
- ❑ Select ‚Install new device software' (if not yet available on hard disk).
- ❑ Select relevant IRIA software version 03.01.
- ❑ Download program starts automatically.
- ❑ Acknowledge displayed message by pressing ‚y' on your laptop computer.
- ❑ Use ‚arrow-up' or ‚arrow-down' keys to select ‚downloadrequest'.
- ❑ While Julian is in service mode, open ‚IRIA menu' and press ‚PC' key.
- ❑ Wait until ‚State: Connected to PGM XX:XX:XX version: 03.01' is displayed (if it does not appear, exit from program using ‚ESC' key and restart with ‚Call up of service program').
- ❑ Press ‚RETURN' key.
- ❑ ‚New value' is displayed (no entry required).
- ❑ Select ‚Take over old value' and press ‚RETURN' key.
- ❑ The following information should appear:

Selected	ID no.	Description
-(X)-	IRIASSSW	iria0301.dld

If -(X)- does not appear, press ‚SPACE' key.

- ❑ Press ‚RETURN' key to confirm.
- ❑ Download is carried out automatically. Wait until ‚Transfer of requested files completed' is displayed. Press ‚ESC' key and exit from service program.
- ❑ Press ‚ESC' key and exit from service program.
- ❑ Switch Julian off.
- ❑ Disconnect test cable RS232 extension 7901808.

4 Checking the Julian

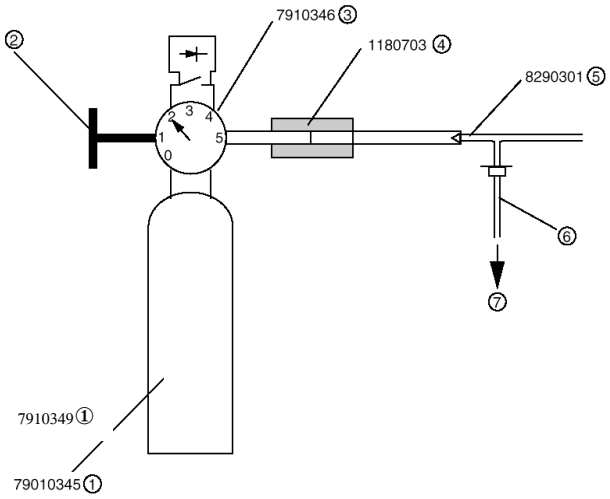
4.1 General Check of Operation

- ❑ Switch Julian on.
- ❑ Acknowledge the checklist, stay for TP 27 and select the service mode. IRIA SW version 03.01 and IRIA Serial Number shall be displayed.
- ❑ Select high flow rate.
- ❑ Breath once into the sample hose when the warm-up phase of IRIA (approx. 3 min) is complete (Do not test while zeroing is in progress!). The CO_2 waveform is shown in the display. Make sure there is a steep rise.

I
Schutz nach DIN 34 beansprucht.
Use of the document / contents is forbidden
without express authority. All rights reserved.
Dräger Medizintechnik GmbH, D-23542 Lübeck

4.2 Checking the Display Accuracy Using Anaesthetic Gas Mixture

Conditions: Julian SW 3.01
Test set-up:



Legend:

1	Test gas 7910349
2	Stop valve
3	Pressure regulator 7910346
4	Tube 1180703
5	Calibration adapter 8290301
6	IRIA sampling line
7	To IRIA

Schutz nach DIN 34 beansprucht.
Use of the document / contents is forbidden without express authority. All rights reserved.
Dräger Medizintechnik GmbH, D-23542 Lübeck

- ❑ Julian is in service mode menu "IRIA". The following measurement can only be performed after reaching at least ISO accuracy for the Secondary Agent (approx. 10 minutes after power-on).
- ❑ Press ‚ZEROING' key on Julian.
- ❑ Connect IRIA sampling line to calibration adapter.
- ❑ Set IRIA pump flow to "High". In the IRIA service mode, use the control knob to set "O_2 digital" to the O_2 value of the test gas canister.
- ❑ Set the pressure regulator hand-wheel to minimum. Open the stop valve.
- ❑ Using the pressure regulator hand-wheel, slowly increase the pressure until you can hear the calibration gas escaping from the calibration adapter.

  Notice: For prolonged testing procedures connect the outlet of the calibration adapter to an anesthetic gas scavenging system or to an anesthetic filter.
- ❑ Julian should detect isoflurane and sevoflurane.
- ❑ The isoflurane value may deviate from the test gas by 0.4 % by vol. ①
- ❑ The sevoflurane value may deviate from the test gas by 0.4 % by vol. ①
- ❑ The CO_2 value may deviate from the test gas by 0.6 % by vol. ①
- ❑ The N_2O value may deviate from the test gas by 4 % by vol. ①
- ❑ Set the pressure regulator to minimum and close the hand-wheel.
- ❑ Remove the test set-up.

① *Note:*
The test gas canisters are supplied with a report containing information about the actual concentration of each canister. If there are any deviations from the concentrations given on the canister label take these actual concentrations into account.